

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 20, 26-28, 30, 35, 36, 38, 44, 45, 47 and 53-60 are pending in the present application. Claims 20, 30, 38, 47, 53 and 54 have been amended by the present amendment.

In the outstanding Office Action, claims 20, 26-28, 30, 35, 36, 38, 44, 45 and 47 were rejected under 35 U.S.C. § 103(a) as unpatentable over Na et al. in view of Fujinami et al. and Takehiko et al.; and claims 55-60 were rejected under 35 U.S.C. § 103(a) as unpatentable over Na et al. in view of Fujinami et al., Takehiko et al. and Slattery.

Claims 20, 26-28, 30, 35, 36, 38, 44, 45 and 47 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Na et al. in view of Fujinami et al. and Takehiko et al. This rejection is respectfully traversed.

Amended independent claim 20 includes a combination of features and is directed to a method of generating a transport stream in an apparatus including a pickup, a controller and a transmitting part, the method including reading, via the pickup, an MPEG transport stream directly from an optical disc, the MPEG transport stream including a series of transport packets, generating, via the controller, a program managing information packet for indicating a discontinuity of the MPEG transport stream in a form of a transport packet, inserting, via the controller, the generated program managing information packet between two of the transport packets existing in the read MPEG transport stream when a discontinuity occurs in the MPEG transport stream, and transferring, via the transmitting part, the MPEG transport stream including the inserted program managing information packet through a digital interface. Independent claims 30, 38, 47, 53 and 54 include similar features in a varying scope.

These features are supported at least by Figures 3(b) and 4 and the corresponding description in the specification.

Thus, according to embodiments of the present invention, a player generates a program management information packet when a recording medium is reproduced in order to avoid additionally recording program management information on the recording medium, and the

program management information packet is inserted between transport packets and transmitted to a display device. Thus, the recording efficiency of a recording medium is improved.

It is respectfully noted that the discontinuity flag in Takehiko et al. is merely an identifier of a marker which simply indicates a generation of a discontinuity and is different from a program management information packet. That is, in one example, the program management information packet in the present invention can store data up to 1024 bits. However, the discontinuity flag in Takehiko et al. is merely a simple flag that cannot store program management information and thus the recording efficiency cannot be improved using the flag.

Further, the discontinuity flag in Takehiko et al. is inserted into an isochronous packet. However, inserting a packet is different from inserting a flag, and the isochronous packet is also different from the transport packet. That is, in the present invention, a transport stream including transport packets is read and the program management information packet is inserted therebetween. On the contrary, in Takehiko et al., transport packets are converted into isochronous packets including video, audio and sub-picture data as shown in Figure 8, and the discontinuity flag is inserted thereon. Na et al. and Fujinami et al. also do not teach or suggest the claimed features. Thus, it is respectfully submitted the combination of references do not teach or suggest the claimed features of the present invention.

Accordingly, it is respectfully submitted independent claims 20, 30, 38, 47, 53 and 54 and each of the claims depending therefrom are allowable.

In addition, it is respectfully submitted the additional rejection noted in the Office Action has also been overcome as claims 55-60 are dependent claims and the additional reference by Slattery also does not teach or suggest the features recited in the corresponding independent claims. Accordingly, it is respectfully requested this rejection also be withdrawn.

CONCLUSION

For the foregoing reasons and in view of the above clarifying amendments, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of record, and earnestly solicit an early issuance of a Notice of Allowance.

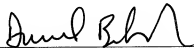
Should there be any outstanding matters which need to be resolved in the present application, the Examiner is respectfully requested to contact David A. Bilodeau (Registration No. 42,325) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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By 

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